REMARKS

This application has been carefully reviewed in light of the Office Action dated June 2, 2005. Claims 19 to 29 remain pending in the application, of which Claims 27 to 29 have not received an action on the merits due to a restriction requirement. Of the claims currently under consideration, Claims 19 and 23 are independent. Reconsideration and further examination are respectfully requested.

The Office Action entered a formal election of species requirement which includes Applicants' provisional election of Claims 19 to 26. However, the Office Action indicates that the telephonic election was made "without traverse", but Applicants' undersigned representative made no such statement. In this regard, during the telephonic interview in which the Examiner requested an oral election, Applicants' undersigned representative understood the requirement as constituting a "Restriction Requirement" based on the Examiner's grouping of claims rather than an "Election of Species Requirement." Specifically, the Examiner indicated that the Group I claims were drawn to a particular invention classified in Class 358, subclass 1.9, while the Group II claims were drawn to a particular invention classified in Class 358, subclass 504. This was, for obvious reasons, understood as constituting a "restriction requirement". However, the formal requirement entered in the Office Action is an election of species requirement. The confusion regarding the requirement is even more evident from the language contained in the Office Action, which lists two groups of claims and their respective inventions and classifications (clear evidence of a Restriction Requirement), while at the same time including language for an election of species requirement. Thus, the best that Applicants can do is to traverse the requirement and to request that the Examiner clarify whether or not the requirement is a restriction or an election. Nonetheless, in the meantime, Applicants confirm their "provisional" election of the Group I claims, with traverse.

Turning now to the merits of the Office Action, Claims 19 to 26 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,538,762 (Terashima) in view of U.S. Patent No. 5,166,986 (Mizuoka). The rejections are respectfully traversed and the

PAGE 11/14 * RCVD AT 9/2/2005 5:44:25 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/29 * DNIS:2738300 * CSID:714 540 9823 * DURATION (mm-ss):03-32

Examiner is requested to reconsider and withdraw the rejections in light of the following comments.

The present invention concerns controlling dot connectivity in a binary image to be transmitted to an image recording device. According to the invention, characteristic-information concerning dot reproducibility of an external image recording apparatus is acquired from the recording apparatus, and based on the acquired characteristic-information, a dot connectivity parameter to be used for binarization of multilevel image data is determined, the parameter being variably controllable to control dot connectivity in a binary image. Then, the multilevel image data is binarized using the determined dot connectivity parameter and the binarized image is transmitted to the recording apparatus. As a result, an appropriate parameter for binarizing the image can be determined depending on the type of recording apparatus since the parameter is acquired from the apparatus.

Referring specifically to the claims, independent claim 19 is an image processing apparatus that transmits, via a network, binary image data to an external image recording device, which records an image based on the binary image data, said apparatus comprising input means for inputting, pixel by pixel, multilevel image data containing gray-scale information, binarization means for binarizing the multilevel image data by using a dot connectivity parameter which is variably controllable to control dot connectivity in a binary image, communication means for communicating with the external image recording device via the network, characteristic-information acquisition means for acquiring, by said communication means, characteristic-information concerning dot reproducibility of the external image recording device, determination means for determining the dot connectivity parameter to be used by the binarization means in accordance with the characteristic-information acquired by said characteristic-information acquisition means, and transmitting means for transmitting image data binarized by said binarization means to the external image recording device, wherein said binarization means binarizes the multilevel image data using the dot connectivity parameter determined by the

PAGE 12/14 * RCVD AT 9/2/2005 5:44:25 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/29 * DNIS:2738300 * CSID:714 540 9823 * DURATION (mm-ss):03-32

determination means, and said transmitting means transmits the image data binarized by said binarization means to the external image recording device from which the characteristic-information is acquired.

Independent Claim 23 is the method claim that substantially corresponds to Claim 19.

The applied art, alone or in any permissible combination, is not seen to disclose or suggest the features of the present invention. More particularly, the applied art is not seen to disclose or to suggest at least the feature of an image processing apparatus acquiring characteristic-information concerning dot reproducibility from an external image recording device, determining, based on the acquired characteristic-information of dot reproducibility, a dot connectivity parameter which is variably controllable to control dot connectivity in a binary image, and binarizing multilevel image data using the determined dot connectivity parameter.

The Office Action admits that Terashima fails to disclose the foregoing determining and binarizing features, but cites Mizouka as allegedly making up for the foregoing deficiency. However, Applicants disagree with the Office Action's assertion that Tereshima discloses the claimed characterisitc acquiring step.

In this regard, as Applicants understand Tereshima, the parameter obtained by the printer driver is obtained from within the host computer, where the parameter is stored ahead of any print processing by the printer driver. In contrast, the present invention acquires the dot reproducibility parameter from the external device. The Office Action, while alleging acquisition of print head parameters, etc. by Tereshima, nonetheless fails to point out any external image recording device from which such parameters are acquired. Accordingly, Tereshima is also not seen to disclose or to suggest the foregoing features.

As Applicants understand Mizouka, it is merely seen to disclose a televison camera that judges an optimum connectively based on a histogram in order to binarize an image. However, Mizouka, like Tereshima, is also not seen to disclose or to suggest at least the feature of an image processing apparatus acquiring characteristic-information

PAGE 13/14 * RCVD AT 9/2/2005 5:44:25 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/29 * DNIS:2738300 * CSID:714 540 9823 * DURATION (mm-ss):03-32

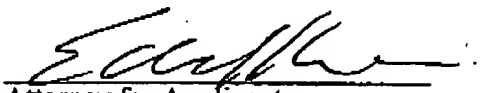
concerning dot reproducibility from an external image recording device. Thus, it also is not able to determine, based on the acquired characteristic-information of dot reproducibility, a dot connectivity parameter which is variably controllable to control dot connectivity in a binary image, and binarizing multilevel image data using the determined dot connectivity parameter.

In view of the forgoing amendments and remarks, independent Claims 19 and 23, as well as the claims depending therefrom, are believed to be allowable.

No other matters having been raised, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office by telephone at (714) 540-8700. All correspondence should continue to be directed to our address given below.

Respectfully submitted,



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PAGE 14/14 * RCVD AT 9/2/2005 5:44:25 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/29 * DNIS:2738300 * CSID:714 540 9823 * DURATION (mm-ss):03-32